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ABSTRACT

Silverplatter's Electronic Reference Library (ERL) provides wide area network access to its databases using TCP/IP communications and client-server architecture. ERL has two main components: The ERL clients (retrieval interface) and the ERL server (search engines). ERL clients provide patrons with seamless access to multiple databases on multiple workstations and across the Internet. The ERL client is able to communicate with up to four ERL servers simultaneously. Creighton Health Sciences Library (Omaha, Nebraska) accesses databases from two ERL servers: The Health Sciences Library ERL server located on site and a Silverplatter ERL server located in Boston. In addition to processing information requests, the ERL software has user account administration and database management programs. ERL ADMIN is a user-friendly DOS program that enables administrators to add, delete, or change user accounts and to calculate usage statistics. The Database Server is a UNIX program which enables the administrator to install, mount, delete, or update databases. The ERL provides librarians and patrons with access to many more databases and advanced searching capabilities than its stand-alone CD-ROM counterpart. A glossary and a list of ERL components and benefits are appended. (AEF)

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The Electronic Reference Library: Silverplatter's Database Networking Solution

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When users need to find journal articles, they are often limited to a few databases on a few CD-ROM workstations. Silverplatter's Electronic Reference Library (ERL) provides wide area network access to its databases using TCP/IP communications and client-server architecture.

The ERL Software is provided free with a Silverplatter subscription and it is used exclusively with Silverplatter databases. ERL has two main components: the ERL clients (retrieval interface) and the ERL server (search engine). ERL clients provide patrons with seamless access to multiple databases on multiple workstations and across the Internet. Users can access the databases using a user name and password. Clients are available for DOS, Macintosh, and Windows. The acronym for the client software is Silverplatter Information Retrieval Software.* The ERL server also has programs for database management and user account administration. The server runs on a Unix machine. Creighton University Health Sciences Library started using the ERL software in August 1995. (Silverplatter Information 2)

One of the main advantages to using ERL is its client-server architecture. Client-server architecture divides the computing work into two parts. The parts are

*Please see Appendix 1 for a glossary of terms.

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called clients and servers.Clients take inquiries from users and send them to the server. Servers process the boolean operations and send the results back to the clients for display. The server can process several searches simultaneously. If users have Internet access, they can access any ERL server on the Internet provided they have the server's user name and password. (IBID.)

The ERL client is able to communicate with up to four ERL servers simultaneously. A university can be in a database consortium with other institutions that use the ERL software. Users at each university can access databases from multiple servers but access to the separate servers is transparent to the end user. (5)

Creighton Health Sciences Library accesses databases from two ERL servers: the Health Sciences Library ERL server located on-site and a Silverplatter ERL server located in Boston. Medline from 1966-1982 is accessed from Boston. Access to the respective servers is transparent to the users. Creighton Health Sciences Library has WINSPIRS clients on the reference workstations. The library staff have loaded the software for the university departments. Several of the university departments use MACSPIRS. The hardware needed to run an ERL Server is a Pentium processor, 64 megabytes of RAM, 12 gigabytes of hard disk, and six CD-ROM drives. The operating system must be a UNIX machine or Windows NT. The total cost of an ERL Server system is under $10,000.

When searching WINSPIRS, users can access an online thesaurus to search the medical subject headings. It is also possible to limit the search to a specific year or language. Users can retype or clear search terms.

In addition to processing information requests, the ERL software has user account administration and database management programs. The options available to the end user can be controlled by the administrator.

The Workstation Configuration Programs control the appearance and functions of the ERL clients. The ERL Configuration Editor stores the TCP/IP addresses for the library's ERL servers. The Client Reconfiguration File allows the administrator to set the print options, workstation options and the ERL options. The print options determine how the record fields, font and margins appear when the user prints citations. The workstation display controls the color of the search window and the language used for the icons and search menus. The search display can be in English, Spanish or French. Using the workstation option, the administrator can allow users to do cross family searching. Cross family searching allows users to search several databases simultaneously. The ERL option determines the databases that are accessible to the users. An administrator can allow users to access the databases from the Health Sciences Library file server and the Silverplatter ERL server in Boston using the ERL client option. If the local option is chosen, the users can access the databases installed in the local CD-ROM drive. If the administrator chooses the local and ERL option, the users can access both the local databases and the server databases. Using the ERL options menu, the administrator can add an automatic login

for an account so that users do not have to enter user names and passwords each time to access the server. Once the configuration options are chosen, they are saved to the WINSPIRS.INI file. The options can be revised at any time. To add an automatic login, the administrator must first assign a user name and password using the administration program, ERL ADMIN.

ERL ADMIN is a user-friendly DOS program that enables administrators to add, delete or change user accounts. Creghton Health Sciences Library has assigned user names and passwords by department. The administrator can configure user options such as maximum number of users for each department so the system does not get overloaded. ERL can have a maximum of 30 simultaneous users.(9)

One of the great features of ERL ADMIN is calculation of usage statistics. It will calculate statistics such as the number of log ins and database usage for each department. The statistics can be exported to a spreadsheet file and used for reports.

ERL ADMIN also has a database option. The administrator can authorize users to access specific databases. Creighton Health Sciences Library has not restricted any of its databases. This feature would be useful in a corporate enviroment where departments are often charged for database usage. The database usage statistics are helpful for collection development. Creighton Health Sciences Library has added

Bioethicsline and Healthplan. The database option helps the administrator to determine if a database is being used.

The Database Server is a UNIX program which enables the administrator to install, mount, delete, or update the databases. The databases can be installed via compact disk or hard disk. Once the database is installed, it can be mounted. When it has been mounted , it is accessible to users. An administrator can view the currently mounted databases. An administrator can install a database or a portion of a database, but not mount it. The databases may not be mounted due to lack of usage or lack of disk space.

The list connections command allows administrators to view the users that are currently logged in and clear a connection if a computer cannot access the server. The administrator can also send messages to users if the system needs to be shut down for a short time. Administrators have the capability to clear computers and manage databases on-site. Silverplatter technical support is accessible via the Internet.

Silverplatter's ERL software provides librarians and end users with flexibility. ERL provides Wide Area Network access using TCP/IP communications and client-server architecture. Users can access any ERL server on the Internet provided they have a user name and password for the server. Users can access several databases and the ERL server can perform simultaneous searches. When clients communicate with

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multiple servers, the access is seamless to the user. The clients and servers perform specific functions. The clients are available in a variety of platforms. The databases can be loaded on compact disk or hard disk. Creighton Health Sciences Library uses both. (10)

Conversely, ERL provides librarians with control. The ERL ADMIN program controls access to ERL via a user name and password. ERL ADMIN also provides the administrator with user account statistics and database usage statistics. The statistics can be downloaded to a spreadsheet file and used for reports. Using the Database Server, the administrator can install, delete, or update the databases on-site.* (IBID.)

The Electronic Reference Library provides librarians and patrons with access to many more databases and advanced searching capabilities than its stand-alone CD-ROM counterpart.

*See Appendix 2 for a summary of benefits.

WORKS CITED

Silverplatter Information. An Introduction to SilverPlatter's ERL Technology.

Boston: Silverplatter Information, 1994.

Appendix 1

Glossary

ERL
the acronym for Silverplatter's Electronic Reference Library Software which provides wide area network access to databases using TCP/IP communications and client/server architecture.

SPIRS
the acronym for Silverplatter Information Retrieval Software which can be used with DOS, Macintosh, or Windows.

Client
The retrieval interface with which the end user interacts. The client is responsible for accepting queries from the user, formating them, and sending them to the server. The client is also responsible for receiving the server's response to the query, and for formatting the retrieved records for display, print or download. The client software must be compatible with the end user's computer.

Client/Server Architecture
A computing strategy that divides a software problem into two pieces, a consumer and a producer, with each piece insulating the other from the details of its operation. In ERL, the software problem of database retrieval is divided into two pieces:1) search and retrieve (the server), and 2) query formulation and results display (the client). The client and server communicate using an agreed-upon messaging strategy called a protocol.

Server
The computer program and machine that is responsible for satisfying client search requests. Sometimes called an application server to distinguish an ERL server's role from a LAN file server. The ERL server is a UNIX machine with mass storage devices (hard disks or CD-ROM drives) on which Silverplatter databases are stored.

WAN
Wide Area Network. A set of computers which can communicate over great distances. WANs use lower speed network technologies than LANs, and are compatible with long-distance networks such as the public telephone system.

Appendix 2

Electronic Reference Library (ERL)

Components

Server

1. WAN Access
2. Search/Retrieval
3. Administration of User Accounts
4. Database Management

Clients (Silverplatter Information Retrieval Software)

1. **WINSPIRS**
2. MACSPIRS
3. PCSPIRS
4. Multiple Servers

Programs

1. Workstation Configuration
   - ERL Configuration
   - WINSPIRS Reconfiguration
2. ERL Admin
3. Database Server

BENEFITS

Flexibility

- Multiple Servers
- Multiple Databases
- Seamless Access
- CD or Hard Disk
- Variety of Platforms

Control

- Password Controlled
- Usage Statistics
- Statistical Reports
- Database Management
- List Current Users